How to Relieve Skin-Itching and Irritation. See page 348.
The "Lancet" on Marriage. By M.D. See page 344.

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HEALTH

A WEEKLY JOURNAL OF

DOMESTIC AND SANITARY SCIENCE.

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Lie in three words, HEALTH, PEACE, and COMPETENCE."—*Pope.*

EDITED BY DR. ANDREW WILSON, F.R.S.E. &c.

VOL. XII.—No. 308. FRIDAY, MARCH 1, 1889. [PRICE TWOPENCE.

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HEALTH

EDITED BY

DR. ANDREW WILSON, F.R.S.E., &c.

LONDON: *FRIDAY, MARCH* 1, 1889.

Contents of No. 308.

	PAGE
Notes by the Way: By the Editor.	341
Original Essays:—	
Corporal Punishment at School. By H. R. Dumville, B.A.	342
The *Lancet* on Marriage. By M.D.	344
Personal Health:—	
Acidity of the Stomach	345
A Study of Sleep and Dreams	346
The Family Circle:—	
Tight Lacing	347
How to Relieve Skin-Itching and Irritation	348
Public Health:—	
New York's Water-Supply	349
Milk and Typhoid Fever	349
Popular Science Papers:—	
How We Deceive Ourselves	350
The Kangra Nose-Makers	351
Jottings from the Journals:—	
Typhoid Produced by Sewer-Gas —What about Dancing?	352
Our Letter Box:—	
Rules for Correspondents	353
Queries and Answers:—Replies: General, Sanitary, and Medical	353

Notes by the Way

By the Editor.

"Health is the foundation of all our physical happiness."—*Herder.*

A medical journal has of late drawn attention to the connection which it supposes exists between genius and ill-health. It quotes Carlyle, George Eliot, and John Stuart Mill as instances of feeble bodies harbouring great minds, and alleges that among living writers it would be easy to name many examples of like physical feebleness in the highly-gifted. There is, however, another side, and there is also a modifying phase of this question. Men and women are what their constitution, inherited from their parents, first of all, make them. After that come questions of personal habits, attention to health, work and rest, and all the multifarious incidents which make up the good or evil of the physical life we know and live. Many persons, geniuses and commonplace folks alike, ruin their health by want of attention thereto; or, conversely, live on to a good old age because of the care with which they environ their existences. I think, in such broad views of the matter, it is easy to discern that genius is no more responsible *per se* for ill health than for good health. It is, perhaps, a sign of genius of no slight extent when a man who is by nature a weakling contrives to live out his life to the full, and to surmount by his care the physical weaknesses which otherwise would cut his existence short prematurely.

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From the pages of a contemporary I extract the following account of "The Stomach Brush." A dental journal publishes the following, translated from the German:—In 1713 there was published a pamphlet entitled, *A Complete Account of the most Useful Stomach Brush, which is now to be had at the Brushmakers at the Old Court Saddler's Shop in Broad-street, in Colln-on-the-Spree.* Many a one may have wished to be able, once in a way, to have his stomach thoroughly cleaned out, and this speculative brushmaker gave a practicable means to give effect to this wish. In the pamphlet there is a drawing of the stomach brush; it resembles a pipe-cleaner, but, of course, is larger. The stalk is made of four wires twisted together, covered with thread, silk, or small ribbons; it is twenty-six inches long.

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The brush at the under end is two inches long and one and a half broad, and is made of goat's-beard hair; but, when one has been accustomed to use it for three or four weeks, a horsehair brush is substituted, this hair being somewhat stronger, and so the effect is better. The application of this most excellent brush is very simple. It is pressed through the throat down into the stomach, which, by drawing up and down of the brush, is cleaned; thereafter, cold water or brandy is to be drunk, and the operation is repeated till the cleaning is perfect. The cure is to be repeated every morning.

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The author says, "at first you will find it rather troublesome to get the brush down; but when you put it in your mouth and on your palate, draw in breath and wind, and press it gently and gradually down, and, without any particular trouble, it will reach the stomach. After eight to fourteen days' practice, it will come as easily to you as eating or drinking." Of course, the daily application of the stomach brush is the infallible remedy or preventive of all diseases that can be imagined. "Whoever uses this cure requires no other medicine, for it is good against all,—cold, hot, and poisonous fevers, it gives a good appetite for eating, it is good against asthma, hæmorrhage, headache, chest-complaints, coughs, consumptions, apoplexy, toothache, sore eyes, dysentery, quinsy on the tongue, quinsy in the throat, ulcers, abscesses, cardialgy; it favours digestion, strengthens

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AND OF ALL CHEMISTS.

the heart, drives away pimples on the skin, is against choking in the stomach, &c., makes too fat and asthmatical and swollen-up people thin, and, on the other hand, makes meagre and thin people fat. This great effect, however, is produced only when the use of the brush is combined with that of an elixir. This is compounded of aloes, saffron, rhubarbona, lark-mushroom, wormseed, eugian, myrrh, and theriac. After the stomach-washing, forty to fifty drops of the elixir is to be taken in wine, and this preserves for twenty-four hours against all poison and pestilence." This extraordinary cure must be added to the already long list of the medicaments of the past. We have more elegant methods nowadays of "cleaning" the stomach, whenever that process is found to be necessary for the cure of disease.

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Since recording my experiences of Mr. Scafe's boots, —those of the Leather and Rubber Boot Company, of 20, Albion-street, Leeds,—noticed in Health, No. 303, I have personally subjected to unusually severe tests two pairs of these boots made for me by the firm above-named. In wet weather, and through melting snow, my feet have remained dry and warm, and in the course of prolonged railway journeys in the recent cold weather I have not suffered from cold feet when wearing the boots in question. There is no doubt at all in my mind that Mr. Scafe, by his "happy idea" of combining rubber and leather soles and of making one walk on the rubber discs of the soles of his boots, has solved a most important problem of healthy life, namely, how to keep the feet warm. I recommend the readers of Health to give Mr. Scafe's boots a fair trial. Those who golf especially, will find them a boon; while for ordinary wear they are perfection itself.

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Referring to absence of memory and presence of mind, a writer says that the sudden lapses of memory that occasionally attack persons of strong mind are frequently very surprising. Such lapses have occasionally been known to come upon public speakers without the audience seeming to have been aware that the speech had been marred. Thackeray relates that he once lost the thread of an after-dinner speech, and thought that he had made a fool of himself; but his mother, who was within hearing, was of the opposite opinion. The Rev. Henry Ware, of Boston, lost himself in the middle of a sermon, and stopped abruptly. He was consoled after the service by hearing one member of the congregation remark to another that that was the best sermon Mr. Ware had ever preached. "That pause was sublime!"

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A French preacher, when a similar accident befell him, remarked, "Friends, I had forgot to say that a person much afflicted is recommended to your immediate prayers," and knelt down to pray. The afflicted person was himself, and his device was successful to the restoration of the thread of his discourse. A famous Irish actor was once called upon to sing his favourite song, "The Sprig of Shillalah," although it was not on the bills. He could not recollect the beginning, and appealed to the audience: "Ladies and gentlemen, I assure you that I have sung this song so often that I forget the first line!" The audience gave him the first line, and he went on with the song amid great applause. Father Taylor, the "sailor's preacher," when he once got confused, cried out: "Boys, I've lost my nominative case; but never mind, we're on the way to glory!"

Original Essays

"Life is not to live, but to be well."—*Martial.*

CORPORAL PUNISHMENT AT SCHOOL.

By H. R. Dumville, B.A.

This, in many respects, is an extraordinary age. A mother may strike and even belabour her child as much as she will, short of positive cruelty, and the world says nothing; but let the teacher at the school use only the necessary amount of correction, and all the world (including the mother) rises up in feverish indignation. Well, indeed, may Mr. Anstey, in the February number of *Longman's Magazine*, satirize the growing sentimentalism of the time; and surely this is one of its most typical features, that it can lash itself into wrathful excitement over a proceeding which is indeed righteous and just, while so many real and flagrant abuses are allowed to pass entirely unscathed. In short, the world, like so many of its individual members, is apt to strain at the gnat and swallow the camel.

In the matter, however, of corporal punishment at schools, and the false feeling that has been displayed on this head, affairs have about reached a climax, and we are glad to see, from a correspondence that has recently taken place in the columns of the *Times*, that reason once more claims precedence over mawkish super-sensitiveness. The agitation may be said to have arisen over one or two cases lately reported at the police courts, whereby the antagonism in which the teacher is held to the law and the peculiar way in which his hands are tied has been amply shown.

Not very long ago, at the Hammersmith Police Court, the head-master of the Saunders Board School was fined by the magistrate for correcting a boy, and the right of repeal refused, although the magistrate declared that he did not think that a deliberate or grievous assault had been committed. On the matter being brought by the Earl of Meath before the House of Lords, it transpired that the Home Secretary had remitted the fine, though not without anxious consideration. In following this course, the Government official was wishful to observe that "cases of corporal punishment were very difficult to deal with, and might very well present themselves to different minds in a different point of view;" and also, "having regard to the great difficulty in determining the line at which legitimate correction ends, and excess, and, therefore, assault, begins, it would be well that school authorities should instruct their teachers to observe, in the infliction of corporal punishment, such a regularity of time and method as to insure the greatest possible security against excess or temper in the person inflicting such punishment,"—with all of which remarks every sensible man and woman is likely to agree.

In another case, in which the head-master of the Bethlehem-street Board School was tried for a similar alleged assault, the conviction, on being carried to Queen's Sessions, was quashed, and the Assistant Judge is reported to have delivered the following pregnant judgment: "We are all of opinion in this case that the conduct of the boy was such as to call for chastisement, and even for severe chastisement, and we are of opinion that the punishment to him was not excessive, and we quash the conviction. We think it of the highest importance, having regard to the duties devolving upon the head-master of such a

school as this, that the discipline should not be weakened by unnecessarily interfering with his authority, and we do not think, after the fullest investigation, that the appellant has in this case done anything which, as a master, he should be sorry for."

In such and similar cases as these the present formidable agitation, as we have said, takes its origin. Happily, the correspondents are generally of one mind, and the consensus of public opinion is decidedly in favour of corporal punishment,—carried out under due and efficient regulation. It may not be uninteresting to our readers, seeing that this is a matter which touches, in its highest sense, the health and well-being of the growing masses, if we briefly run through some of the leading letters. The Earl of Meath, to whom all honour is due for so vigorously exerting himself in the movement, refers to the way in which "our wise officials, by comparatively recent prohibitory regulations against the limited use of corporal punishment in district, industrial, and reformatory schools for girls in England, have completely tied the hands of those who are responsible for the education, training, or reformation of the rough or criminal characters to be found in these institutions."

Upon this point he has received letters from various ladies engaged in rescue work in England. "In one district school, where, owing to the rough character of the girls, it had been found necessary occasionally to resort to the use of the birch, with the tacit consent of the official inspector, a local sentimentalist having written to head-quarters, a reluctant order was sent that the regulations against corporal punishment were strictly to be adhered to, with the natural result that insubordination became rampant, and it was found impossible to maintain proper discipline and order." According to the said regulations, the greatest punishment which can be given by the superintendent of an industrial or reformatory school in this country is three days' confinement in a light room or cell. Is such punishment, he asks, likely to deter from insubordination and crime, the rough and criminal girls who are sent to reformatories? Those who, from their experience, are best qualified to judge say not.

The Rev. Harry Jones pithily remarks: "No doubt the hasty stripes of a few angry men have caused more discomfort to their fellow elementary teachers than to the scholars whom they have beaten. They have brought about that modern magisterial consecration of a boy's skin which frustrates the procedure of some wise teachers, and would put Solomon himself in the dock." Mr. G. J. Romanes writes: "Speaking from some experience in the administration of voluntary schools, I am quite sure that the School Board is right in desiring to maintain corporal punishment as the only means whereby order and decency can be preserved, especially among children of the lowest class." He concludes his letter with one or two valuable suggestions regarding proposed legislation on the subject. "In the first place, it is desirable that the extent of the teacher's authority should be clearly defined, so that the legality of his act shall cease to depend upon the individual opinion of a magistrate. This, I think, may best be done by stating some limit beyond which a teacher may in no case proceed without, *ipse facto*, rendering the punishment illegal. In the next place, it is desirable that the instrument of castigation should be named; and, in my opinion, if this instrument should continue to be the cane, its use upon the hand should be prohibited." With the last recommendation we believe most of our readers will very heartily agree. In many respects the cane is a dangerous weapon, and doubtless it would be well, as Lord Meath proposes, to do away with its use in Board Schools altogether, and substitute the birch.

Very valuable testimony comes from Mrs. Meredith, of the Princess Mary Village Homes, at Addlestone, who, as the representative of the school authority in the largest certified industrial school for girls in England, is well qualified to be listened to with respect. In the course of an interesting letter she says: "The State has so long failed to do its duty in this matter that parents of the lower classes have, for the last two generations, at least, lapsed into entire forgetfulness of theirs in regard to corporal punishment. It is not that they do not beat and knock about their children, sparing neither sex, but that they hurt them cruelly and wantonly without reason or method, for which acts they themselves deserve corporal punishment. It is useless to try to deal with such parents about correcting their children. They have irrevocably lost their privilege of punishing the young, and it must be completely transferred to the State. . . . . If they had whipped their little ones at an early age for doing bad things, they would not have to bear the later sentences of court for their transgressions. Under the ages of nine and ten, girls may be dealt with according to the practice of mothers of the good old times, who, in all ages, have done severe service with their hands. Older than the above age, they may be made to feel severely enough for any purpose by the use of a birch on the hands, and on the lower part of body and limbs. At no age should any blows be given above the arms." Mrs. Meredith goes on to say that the corporal treatment as carried out at the Princess Mary Village Homes has been a complete success, having resulted in the reclamation and happy after-life of numerous inmates.

Summing up the entire question, it would appear that if school discipline is to be maintained at all, some form of chastisement must be resorted to. The said chastisement, practically, as Lord Meath puts it, resolves itself into two forms,—confinement within school after the usual hours and corporal punishment. A serious objection to the former of these methods is that it necessitates that the teacher, whose hours are quite long enough already, shall stay in school too; and thus, in order that he may punish his pupil, it is necessary that he also suffer himself. Moreover, the magisterial verdicts here again clash, for it is not so long ago that it was decided at the Clerkenwell Police Court that masters and mistresses had no power to detain children after school hours. The result of the decisions we have referred to, and others preceding them, has been that it has become almost impossible to maintain discipline in some schools. Lord Meath tells a story of a boy who at one school deliberately refused to read when told to do so, and there was absolutely no means of compelling him. When the master insisted on obedience, the boy said: "You had better not touch me; if you do, I shall have you fined again." In another case, a boy who had stolen a book denied the theft, but the book was found upon him, and when threatened with punishment he replied in similar fashion to the master. In yet another case, a boy misbehaved in the playground, and when the caretaker touched him upon the shoulder to point him out, the boy said: "You dare to touch me, and you will be summoned." In none of these instances did the masters have the courage, in face of the recent decisions, to inflict punishment.

The need of some change in the law will thus be very amply manifest. The recommendations brought forward by Lord Meath, however, are of too important a character to be discussed at the tail end of an article. That the

birch should be substituted for the cane, as we have said, we are heartily at one with. We also think that it would be well if only head-masters and mistresses were empowered to whip in private after school hours, and that in each Board School printed regulations should be laid down stating the maximum number of strokes to be given, the instrument with which they are to be inflicted, and the part of the body where the punishment is to be administered. The suggestion that in all large cities institutions should be established where children from the various schools can be sent to be whipped, confined, or in other ways punished, demands rather more careful consideration. Of the necessity and health-advantages of corporal punishment in the training of children, however, all must, when the question is fairly placed before them, be pretty well agreed; and the thanks of the community should be warmly accorded to Lord Meath for the strenuous endeavours he has made to bring a matter requiring earnest attention before the tribunal of public discussion.

THE "LANCET" ON MARRIAGE.

By M.D.

The *Lancet*, following the lead of Health, discussed in a recent article the great problem which I have ventilated in the pages of this journal,—namely, the crime against society which is represented by the marriage of those who are the subjects of disease. It is satisfactory to find a leading medical journal following in the wake of Health as a popular expounder of these great laws of safe and happy life. The *Lancet* is "going with the times," despite its conservatism and its recorded objections to the education of the people in health and medical matters. This is only what one may look for and expect. The world does not stand still, even though popes decree and kings command to the contrary. This journal, as the first organ which formed a needed link between the medical profession and the public, may well rejoice in the respectable following of its lead. Henceforth, although we have never had any cause of quarrel with our contemporary, we may ask our medical friends to bear in mind what Health has late and early maintained as the wise and indeed only morality in the matter of the marriage-relationship which commends itself to thinking men and women in "this our day."

The *Lancet's* words are as clear as our own; they repeat practically the contentions which have appeared in these pages. A few quotations will suffice to prove this fact, and to add to our own words the weight of opinion which our contemporary represents.

The article is entitled "The Sterilization of the Unfit," —a term implying the need or advisability of preventing those unfit for marriage from undertaking the duties and responsibilities of parents. "All clear teaching on this subject," says the *Lancet*, "hinges upon the doctrine of the hereditary transmission of disease,—a doctrine now incontestably established, but by no means accorded the general recognition and the great importance which it so clearly merits. Like produces like. The healthy parent is likely to have healthy offspring; the unhealthy parent tends to transmit his or her defective type of physique. Long ago the poet Horace warned his countrymen of this obvious, but often disregarded truth:—

> 'Fortes creantur fortibus et bonis
> Est in juvencis, est in equis patrum
> Virtus, neque imbelleni feroces
> Progenerant aquilæ columbam.'

But the enumeration of the vague truth that disease tends to be perpetuated in the line of descent will make little impression on the public mind. What is wanted is precise teaching as to the particular diseases in which this law is peculiarly manifest, and some estimate as to the probable extent of the risk. Few individuals are typically healthy, few families are altogether free from some morbid taint. So true is this, that many persons who, in contemplating marriage, are brought face to face with the unpleasant risk which the intended union may involve to their children, are apt to take refuge in the reflection that such perils are part of the lot of humanity, and cannot be guarded against. If, however, such persons,—presuming an honest intention to do right and avoid a grievous responsibility,—were authoritatively informed that the risk in certain cases is so great that it cannot justifiably be run, probably some at least would refrain."

These are words of unmistakable force. As such, they second, in a way, leaving nothing to be desired, the opinions expressed in the article on "Healthy Marriage" (see Health, No. 299), and in that on "The Morals of Health" (see Health, No. 303). The story of the hereditary transmission of gout, consumption, syphilis, and insanity is then discussed by our contemporary, thus following out our own lines of illustration.

I quote what is said by the *Lancet* about the passage of consumption and gout from parent to child:—"As regards phthisis, we have tolerably definite evidence, the proportion of hereditary cases being estimated at from one-third to one-half the total number. Hence it is clear that a patient with developed phthisis is certainly not justified in marrying. A further consideration comes here into view,—viz., that the risk to the offspring is immensely increased if there be a consumptive tendency on both sides. A healthy member of a phthisical family may marry without blame, but he incurs an imprudent risk if his partner, although enjoying personal health, is also of infected stock. This is a point which would repay the efforts necessary to impress it upon the public mind. Gout is certainly hereditary in a very large proportion,—some say one-half the total number,—of cases. The probability that a gouty parent will transmit his diathesis to his children is considerable; and the same is true of insanity. As regards mental diseases in general, it is desirable to recollect that a morbid neurosis is not the less certainly hereditary because it displays itself under different forms in different generations. One generation may exhibit epilepsy or alcoholism, while the next shows well-developed insanity. It will generally be found that the near relatives of the insane display varying degrees of nervous instability."

The remedy for the sad and miserable results of unwise marriage is implied in our contemporary's title,— "The Sterilization of the Unfit." This end is only to be effected by unfit persons not entering the marriage state. In human life it is the higher law of reason and self-denial,—in itself both a means and a result of moral discipline,—which must lie at the root of all improvement of the present sad state of disease-transmission through matrimony. There can be no law or compulsion in the matter. In a Spartan community, doubtless, every difficulty would have been resolved by a rigorous application of law forbidding the diseased to marry. Perchance, such a community might have taken an earlier and more decisive way of solving the problem by forcibly cutting short the life of diseased or weakly persons at their birth or in their childhood. But there is obviously no room for such inhuman and drastic measures in our enlightened code of ethics. Grant Allen, in one of his stories, "The

Child of the Phalanstery," shows fairly well what humanity would have to say to such a practice; and Mr. Besant, in "The Inner House," argues on similar lines. Besides, there is a chance of improved health in many cases, and it is here medical science steps in to aid and help the sickly to obtain health.

In closing its remarks, the *Lancet* says:—"We will not attempt to probe deeper a subject that abounds in peculiar difficulties. We sympathize with those who resolutely put it out of sight; but we feel sure occasions arise in which any ambiguous language regarding the tremendous issues involved would be unworthy of the best traditions of the practice of medicine. We grant all that has been so often urged regarding the futility of interfering with the natural instincts of men; and we are fully conscious of the grave evils (what evils, may we ask?) which would ensue from a multiplication of the already numerous obstacles to marriage. Yet we plead for truth. We cannot ignore the fact that the true teaching on this subject must come from us, if it is to come at all. No doubt our advice is often sought by those whose minds are already made up, and who will pursue their way in spite of our most earnest warnings. Be it so; but our duty to instruct and forewarn is not less clear. We are responsible for the diffusion of the light that is in us, and for the employment of our peculiar authority in promotion of the purification and well-being of human society."

I applaud these remarks; but the *Lancet* should note that if society is to be educated up to the standard of high living in this respect the medical journals must imitate ourselves as popular educators. They must descend from the pedestal of professional priggishness, and make known to the people the laws of health. Fortunately, however, this work is being accomplished by ourselves and others, independently of the organs of medical opinion, whose assistance we desire, at the same time, gratefully to acknowledge.

Oil *versus* Gas.—Messrs. Defries & Co., of the Safety Lamp and Oil Co., draw attention to the installation of Defries' pneumatic mineral oil street-lamps, erected by them on Holborn Viaduct and Circus, as being a forecast of what is likely to be, for several reasons, a better means of lighting the public streets than gas. The lamps are constructed to burn thirty hours without refilling and without losing any of their light; they are shadowless, and they produce a more powerful light than is obtained from the existing gas-lamps at a very considerably reduced cost. The gas-lamps of sixteen candle-power cost 70s. per lamp per annum; whereas the oil-lamps can be kept going for a similar time each day to the gas-lamps for 50s. per lamp per annum. The lamps burn equally well be it fine or wet or windy. There is not a single moving part in the system, and although the oil in the reservoir is above the burner and out of sight yet no overflow is possible. The subject is of great public interest, seeing that for the first time mineral oil is available in a practical form for street-lighting, and the ratepayers have it in their power to obtain a light better than they now have, and reduce their lighting rates by about one-third. It is incidentally mentioned, as a proof of the perfect working of this system of lamps, that the War Department, after a twelve-months' trial of them against gas and other forms of lamp, have adopted them, and a first order is now on hand for upwards of 700 for lighting Aldershot Camp.

Personal Health

"Be timely wise;
With health all taste of pleasure flies."—*Gay.*

ACIDITY OF THE STOMACH.

As the late distinguished Dr. Flint has observed, the mass of labouring men are free from dyspepsia, while the in-door workers, students, and the like, are particularly subject to it. The natural and very correct inference is that if the latter class would bring their habits of life a little more into keeping with the occupation of labourers, it would tend to eradicate their dyspepsia. As a general thing, the student, the office man, the thinker in-doors is an over-fed individual. Among those with good physique, over-feeding tends to promote gout, a condition wherein an acid is evolved in the blood, and unites in the joints, with soda, forming there a compound. Rheumatism is likewise a condition in which there seems to be an acid in the system, tending, as in the case of gout, to irritate and inflame joints. Gout is the slow outcome of over-feeding; rheumatism is accelerated by certain atmospheric changes; and acid dyspepsia is the immediate outcome of over-feeding (or of want of exercise). It occurs to the writer that if the stomach be very strong, or digestion filliped, as with stimulants, &c., the acid condition might show itself otherwise than in the stomach, —for example, upon the skin in the form of eczema.

A most common form of dyspepsia is acidity, in which, when a little of the gastric contents is regurgitated, it burns the throat like a corrosive acid. It likewise burns the stomach so that the pain sometimes becomes intolerable, and, strange to say, it ofttimes subsides if the patient lies down, for the recumbent posture alters the position of the fluid in the stomach. Occasionally, eating freely will bring ease and relief,—indeed, it seems to start digestion afresh and effectively.

It has been frequently pointed out that the victims of cancer of the stomach are frequently those who have suffered long from dyspepsia. Advancing knowledge has led to the conclusion that an injury or a protracted irritation is a frequent precursor of cancer. The presence of a burning liquid in the stomach, day after day, should be, and doubtless is, a frequent cause of cancer of this organ.

"But," says one, "I am busy all day,—what am I to do?" Walk out in the evenings; never go to bed on a full meal without having had a walk. Further, carry something of some weight in the hands, for walking alone is not sufficient. We know a man who keeps acidity of the stomach at bay by walking every night after dinner with a bag full of books in his hands. The books exercised the arms, the walking the legs. Tricycling and bicycling are admirable exercises, and as to horseback-riding, Lord Broughton said, "The outside of a horse is the best thing for the inside of a man."

How about medicines? is a pertinent inquiry. They are palliative in acidity of the stomach, but will no more compensate for a deficiency of exercise than for an insufficiency of air or light. Magnesia carbonate is most useful, say, in doses of five, or ten, or even twenty grains, in a wineglass of water. To relieve at once, soda bicarbonate is doubtless unequalled; from six to twelve tabloids may be taken at a dose. The difficulty with soda is that it does not tend to cure so effectively as the potass. bicarbonate does. We have known of many cases of dyspepsia deriving the very greatest benefit from the latter. An admirable agent are the "Neutralizing Tabloids,"

containing, as they do, "ammonia, soda, and mint." They are excellent for flatulence.

Massage is another remedial measure of no mean power, and those interested in this efficacious treatment can do no better than read the fourth edition of Dr. Wm. Murrell's famous work on massage as a mode of treatment.

A STUDY OF SLEEP AND DREAMS.

The application of general scientific methods to the problems of mental action has everywhere brought results of interest and value, and especially pleasing has been the success attending the study of the statistics of mental phenomena. Observations in themselves trivial, apparently accidental even, when intelligently grouped together, bring to light truths only dimly suspected and poorly understood. The errors of individuals in part disappear in the average, and results obtained by one method are controllable by others. A very striking innovation, with the help of the statistical method, into an obscure region of mental action is attempted in a recent study coming from the University of Dorpat, Russia. A series of questions were drawn up, and 500 copies distributed. Of these, over 400 were returned filled out; and it is upon these answers, which the author declares unexpectedly clear and accurate, that the conclusions of this paper are based.

Each observer, after stating his name, age, sex, and occupation, set himself to answering the following questions regarding his sleep and dreams. The persons were divided into three classes: 1. Students (151 in number); 2. Other males (113); 3. Females (142).

I.—Dreams.

1. Do you dream every night, frequently, seldom, never? "Nearly every night" was grouped with "every night," making 99 such answers; "frequently," "very frequently," &c., were reported 133 times; "seldom," &c., 153 times; and "hardly ever" or "never," 15 times; 6 were undecided.

2. Are your dreams vivid? This was answered affirmatively 216 times; negatively, 175; undecided, 15.

3. Can you well remember your dreams upon awakening? "Yes," 194; "no," 203; "undecided," 9.

II.—Sleep.

1. When do you go to bed?

2. When do you rise?

3. Are you tired in the morning upon awakening? Do you become tired early in the evening? 38 were tired both morning and evening, 104 in the morning only, 95 in the evening only, 169 at neither time.

4. How long does it take you to fall asleep? This question is difficult to answer, and the general tendency will be to overestimate the time; and this was partly taken into account.

5. Do you sleep through the night without awakening? "Yes," 261; "no," 143; "undecided," 2.

6. Is your sleep deep or light? Is it easy or difficult to wake you? "Light," 202; "deep," 166; and 26 reported "deep sleep, but easy to wake."

7. Can you go to sleep at day-time when desired? "Yes," 103; "no," 294; "undecided," 9.

8. Are you accustomed to sleep at day? When, and how long? This question was used with Nos. 1 and 2, to obtain the duration of sleep per twenty-four hours.

III.—Work, Disposition.

1. When is mental labour easiest to you? "In the forenoon," 182; "late in the afternoon," 6; "at evening and night," 133; "forenoon and evening," 43; "no difference," 28.

2. What is the nature of the work? The object was to ascertain whether the kind of work limited the time of doing it, but the question was not successfully formulated.

3. Do you suffer with nervous disorders (headache, uneasiness, moodiness)? A decided "no" was given only 18 times; "seldom," 196; and "yes," 210.

4. Is your temperature sanguine, choleric, phlegmatic, or melancholic? "Sanguine," 132; "choleric," 70; "phlegmatic," 74; "melancholic," 20; various combinations, 102.

The results for the two sexes were so different that they demanded separation, while the students formed a homogeneous class interesting as a special study. The first problem that was proposed was the relation between the frequency and the vividness of dreams. It appears that 62·5 per cent. of those who dream every night dream vividly, 60·5 per cent. of those who dream frequently, and only 26·8 per cent. of those who dream seldom, showing that the vividness of dreams increases very markedly with their frequency.

Next, how is the intensity of sleep related to the frequency of dreams? Of the students who dream nightly, 68 per cent. have a light sleep (and only 28 per cent. a deep sleep); of those dreaming frequently, 40 per cent.; of those dreaming seldom, 32·8 per cent. Similar percentages for the other males are 68·8, 42·1, and 39·3; and for women, 72·4, 60, and 50 per cent. We conclude, then, that frequent dreams are a concomitant of light sleep, though the relation is far from universal.

These are the questions that formed the starting-point of the investigation. The rest of the information is grouped together in one large table and an admirably arranged diagram, from which more conclusions can be drawn than can find mention in this *résumé*. Those that the author singles out may be noted.

As regards sex, women have 73 per cent. of their number dreaming nightly or frequently, while students have only 50 per cent., and the other males 48 per cent. Again, 63 per cent. of the women sleep lightly, and only 42 per cent. of students, and 44 per cent. of other males. We conclude, then, that women have a very much lighter sleep than men, and that their dreams are proportionately more frequent.

Another conclusion, the evidence of which is too detailed to present, is that, as we grow older, our dreams become less frequent, but our sleep becomes lighter; age affecting the intensity of sleep more than the frequency of dreams. The author regards the students as in the period of maximum dreaming (twenty to twenty-five years of age). The deep sleep of childhood (hostile to frequency of dreams) is then least counterbalanced by the lessening of dreams due to age. The vividness of dreams shows a similar relation to age and sex; the women dream most vividly; the students, being younger than the other men, have more vivid dreams. The power of remembering dreams is also dependent upon vividness and frequency of dreaming; it is, accordingly, greatest in women, and greater in students than in more mature men. The liveliness of the emotional nature, a prominent feature of women and youth, seems thus to be marked out as the causative agent in the production of dreams.

The duration of sleep should naturally be related to the habit of dreaming, but in the men no such relation can be discovered. In the women, however, it appears that those who dream frequently sleep nearly an hour

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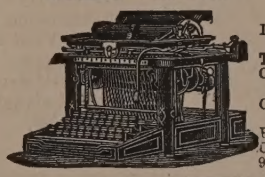

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longer than those who seldom dream. This difference is regarded as due to the fact that men are more under duty to break short their sleep, and thus vitiate the statistics. This is corroborated by the frequency with which the men who dream frequently declare themselves tired in the morning, indicating incomplete sleep. The need of sleep is greater in women than in men; the duration of sleep being longer, and the percentage of "tired morning and evening" and of "not tired" being 3 to 2 and 2 to 3 respectively as compared with the men. Students sleep longer, and are less tired, than other men.

The time needed to fall asleep is about the same in all three classes,—20·8 minutes for the men, 17·1 minutes for students, and 21·2 minutes for women. In each case, however, it takes longer for those who are frequent dreamers and light sleepers to fall asleep than persons of opposite characteristics. 80 per cent. of students sleep uninterruptedly throughout the night, 70 per cent. of other men, and only 43 per cent. of women. Light sleep and frequent dreams increase the interruptedness of sleep.

The power of falling asleep at will is possessed by few. It is greater in youth than in age. 28 per cent. of men, 19 per cent. of students, and 20 per cent. of women sleep in the afternoon, indicating a making-up of insufficient sleep on the part of the men.

The effect of dream-habits upon mental work is also evident. Those who dream seldom, or sleep deeply, are better disposed for work in the forenoon than light sleepers and frequent dreamers. The forenoon seems in general to be the preferred time of work.

The statistics regarding nervousness confirm the accepted fact that this is greater among women than men. It is greater among students than among men at large. It is, too, a concomitant of light sleep and frequent dreams. As to temperament, the phlegmatic people are quite constantly deep sleepers and infrequent dreamers.

Finally, a contrast between teachers and professors of the same average age shows the effect of occupation. The teacher, with his daily toil, has a lighter sleep and more frequent dreams; while the professor, leading a comparatively congenial and worriless life, is a deeper sleeper and less frequent dreamer. This, perhaps, is related to the lack of visualizing power that Mr. Galton found to be current among men of science.

The relation between depth of sleep and frequency of dreams seems explicable on the supposition that the insensitiveness to outside excitations present in deep sleep also induces insensitiveness to internal impressions. The threshold of mental life is raised. If the normal psychical activity is great, then, even in a deep sleeper, will the dreams be frequent, thus accounting for the exceptions.

In addition to the interesting results that this study has brought out, it increases one's sense of the utility of such inquiries, and shows the truth of Galton's experience, endorsed by the author, that "it is a much easier matter than I had anticipated to obtain trustworthy replies to psychological questions."—*Science*.

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The Family Circle

"The child is father of the man."—*Wordsworth.*
"In bringing up a child, think of its old age."—*Joubert.*

TIGHT LACING.

A few nights ago a young lady in attendance at a ball in a fashionable neighbourhood fell while engaged in a dance, and, on being removed to an adjoining room, expired. It was discovered that, being inclined to *embonpoint*, it was her custom to lace to the extent of reducing her waist to a circumference consistent with the recognized standard, and to this custom, no post-mortem examination having been made, the death was attributed.

Whether or not the etiology was correctly ascribed, the circumstance is sufficient to direct attention to one of fashion's most dangerous exactions. Any attempt to banish corsets from the modern lady's wardrobe would be futile in the extreme. She must wear them for the "support" which they supply, and the best that can be hoped for is that the more flagrant abuses accompanying them may be corrected. Nature is very kind, and endures without resentment many indignities, and in the extent to which she permits the thorax to be distorted we have a striking instance of her consideration for feminine vanity, as it takes form in "enlightened" lands. In the darker quarters of the earth, the head is sometimes squeezed out of shape; and, again, the feet are kept from developing, and yet nature often permits the fools to attain a green old age.

This subject was freely discussed before the Biological Section of the British Medical Association, at its late meeting, and the hygienic and æsthetic bearings of the custom received attention. The *Lancet*, in referring to the matter, held the chief source of danger to lie in the fact that the compression of the chest by means of tight lacing is resorted to after ossification has become quite complete. The stays which sensible mothers allow their girls up to the age of fourteen or fifteen are soft, and exert little more pressure than the waistcoat of a boy. At that age, when the figure naturally changes, the firmer support is taken into use, and the amount of harm it occasions is dependent on the degree to which support becomes compression.

There are, no doubt, many girls who, desirous of making themselves conspicuous and, as they foolishly believe, attractive, tighten their waists to such an extent as to incapacitate them for taking exercise and for the necessary ingestion of food; they consequently become weak, pallid, and chlorotic. These evils are, moreover, intensified by the rapidity with which the compression has been applied, and all who are interested in their welfare should exert themselves to point out the egregious folly of such a practice. Upon the æsthetic side of the question there is little to be said; here, as in so many other controversial questions, *de gustibus non est disputandum.*

Amongst the Greeks, for ages the arbiters of taste, the women wore an apology for stays, and we are told that at a very early period the girdle was strengthened by metal, and long before the Christian era a broad band or belt was worn next the skin to support the breasts. According to Planche, the practice of tight lacing appears to have been introduced by the Normans as early as the twelfth century, and has been in use ever since. We apprehend the ordinary Englishman, though he may wonder at, does not really admire a wasp-like figure.

Both hygienically and æsthetically, tight lacing is a mistake. Yet it must be remembered that, partly as a result of climatic conditions, partly from abundance of food and absence of severe work, and partly perhaps from the hereditary effect of sexual selection, a large portion of the young women of England, of the middle classes at least, are disposed to the accumulation of fat in the breasts, and though from the age of seventeen to twenty-four the breasts may be firm and prominent, yet after that period they are apt, without artificial support, to become flaccid and pendulous.

The advantage of support, however, is no argument for the employment of compression. Dr. Hoyle made a good hit in saying that no woman regarded herself as properly dressed unless she felt a little uncomfortable. He might have added that the proportion of discomfort experienced may be pretty safely taken as the measure of mischief being effected in the willing victim of tight lacing.

HOW TO RELIEVE SKIN-ITCHING AND IRRITATION.

It has been said, and very truly, that there are few specifics in medicine. Therefore, when an agent is met with, upon the efficacy of which medical men are in full measure more or less agreed, it is seemingly all the more worthy of special note. Those who are subject to itching, irritation of the skin, and eczematous eruptions know full well how troublesome these affections are, and how intractable and difficult to cure.

There has recently appeared in the three leading medical contemporaries a correspondence among physicians on this theme, in the form of inquiries and responses, and, as it will doubtless prove instructive and interesting, it is reproduced. While several medicines were recommended, we note that alone upon which there appeared to be general unanimity. In one or two instances the technical terms are changed for ones more comprehensible to the general reader. The correspondence, we observe, has been repeated in the reports of a contemporary.

"*Pruritus*" (*or Itching*).—*An Inquiry*.—The first letter appeared in the *Lancet*, Nov. 24th, 1888, p. 1053, and runs as follows:—"To the Editors of the *Lancet*,—Sirs,—Can any fellow-practitioner kindly suggest anything reliable in a hitherto intractable case of pruritus associated with eczema of the thigh? The lady is . . . . otherwise healthy; but her sufferings night and day are intolerable, and have been so for months. It vain have been tried solutions of nitrate of silver, ol. menth pip., ext. conii, sodii hyposulph., hydrarg. bichlor., &c., as also alkaline ointments, quinine ointments, ungt. potass. sulphurata, potass. cyanidi, iodine, &c.—I am, Sirs, yours faithfully, M.D., Manchester, Nov. 6th, 1888."

In reply to the above inquiry, the *Lancet*, Dec. 1st, 1888, contained a number of replies, from two of which the following extracts are made:—First answer.—Mr. Percy Newell (Ipswich) "recommends a careful regulation of the diet and the use of Vinolia. . . . . ." Second answer.—"Ixion" "recommends Vinolia, which he thinks will allay the irritation at once. The preparation is said to consist of zinc, antiseptics, &c."

Eczema.—*An Inquiry*.—The next letter of inquiry appeared in the *British Medical Journal* of Oct. 20th, 1888, p. 914, as follows:—"An Old Physician" writes: "I am a hard-worked physician in my sixty-seventh year. . . . Within the past two years I have had three most severe attacks, the present one under which I am labouring being the most severe. I am a most temperate-living man, an early riser, know of no cause for the attacks, except a mental shock that I received two years ago from a most unjust lawsuit that was decided against me. I am taking full doses of Fowler's solution, with wine of colchicum in Murray's magnesia, using the Dee oil, with oil of sweet almonds upon the ulcers and bandaging the legs. I am using a mixed dietary of meat and vegetables, and only drink whisky and water by the advice of several leading physicians. . . . The disease in my case appears in all forms,—the throat and neck discharging; the extremities ulcerated, like pemphigus; other parts dry, like psoriasis; *the itching intolerable;* no sleep, except by chloral and hyoscyamine; bowels fairly regular, unless I drink milk, which constipates me always; renal secretions normal. Any hint will be most kindly and gratefully received."

The answer to the foregoing appeared in the columns of the same journal, Oct. 27th, 1888. "B." writes: "If 'An Old Physician' will try Vinolia, I am sure it will relieve the intolerable itching of which he complains as soon as applied, and it may entirely cure him. It was recommended to me by the late Dr. Milner Fothergill. It is a French preparation, and can be obtained from Roberts, chemists, 76, New Bond-street, London. I was for years a sufferer from eczema, but it has quite cured me, and I have recommended it to a large number of eczematous patients, every one of whom speaks of it in the most grateful praise. Vinolia will alleviate the worst forms of eczema. For pruritus there is nothing like it; it stops the itching at once."

In the *Medical Press and Circular* of Jan. 23rd, 1889, still another inquiry appears from a physician, and we reproduce the correspondence.

Itching.—*An Inquiry*.—"A patient of mine has suffered from jaundice for the last two years. During that period he has had repeated attacks of biliary colic. At an early stage he had an attack about every ten days, latterly about every month. He suffers greatly from the intense itching of the skin; in fact, during the last two weeks it has become intolerable. I only succeeded in securing one gall-stone, though a careful watch was kept. I have tried ether, turpentine, phosphate of soda, acids, alkalies, sponging skin with both of the latter. All of no service, the intense itching still remains. Would you or some of your readers kindly give me some advice? The patient always says if it was not for the itching he would be right. I am, Sir, yours, &c., A. B. C."

The Remedy.—*Answer*.—"In reply to the query of 'A. B. C.' in this day's issue of the *Medical Press*, I would recommend him to try the application of Vinolia, as, for such a case as he describes, it has never once failed in my hands. (Full particulars of this preparation will be found in the *Medical Press* of December 26th, 1888, page xxii.) I am, Sir, yours, &c., F. V. Macdowell. St. Kevins, Baltinglass, Jan. 23rd, 1889."

The second reply ran as follows:—"In reply to your correspondent, 'A. B. C.,' who asks what will relieve a troublesome case of pruritus, I would strongly advise him to make trial of Vinolia. In most forms of pruritus, whatever the cause may be, it acts like a charm, almost instantaneously, and gives great satisfaction to one's patients. In the severe itching which often accompanies eczema, in urticaria, in pruritus vulvæ, and in the distressing itching which follows the use of croton oil and of iodine, its value can scarcely be exaggerated.—I am, Sir, yours truly, M.A., M.D.—Glasgow, Jan. 31st, 1889."

Public Health

"Health is the first Wealth."—*Emerson.*

NEW YORK'S WATER-SUPPLY.

The third argument of the Bartlett syndicate is that New York requires a greater supply of water per head than other cities, and that 200 gallons per day would not be too much. Both of these statements are pure assertions supported by no proof whatever. If the water cost nothing, something might be said in their favour, as, for example, that the extra supply would do no harm, and might be used for motive-power, &c.; but every gallon of water delivered in this city through a general supply must be paid for by taxation; and, therefore, it is necessary to scrutinize carefully the uses to which this water is put. The mere fact that a large city has a large water-supply *per capita* is not necessarily creditable to that city,—it may, on the contrary, indicate municipal extravagance and recklessness in the use of the people's money; and the undertaking of great and costly works for additional supplies when it is certain that one-half of the existing supply actually is, and that two-thirds of the proposed supply would be, wasted, and that most of this waste could be prevented, indicates either ignorance and indifference or a scheming for personal benefit rather than a desire for the public good, especially when it is proposed, not only to tolerate existing waste, but to count upon its increase.

Bearing this in mind, let us see what the *per capita* supply of water actually is for some of the great cities of the world. For this purpose we will use the figures given in the address of Sir J. W. Bazalgette as President of the Institution of Civil Engineers in 1884, and the report on American Water-Supplies of the last census. The figures give the number of gallons supplied per head per day: London, 31; Paris, 36; Berlin, 13·3; Vienna, 19; St. Petersburg, 21·3; Boston, 73; Philadelphia, 54; Chicago, 102; Baltimore, 65.

In 1868 the daily consumption of water per head was, in gallons: Glasgow, 63·6; Manchester, 27; Edinburgh, 43·2; Liverpool, 31·2. It is now less in all these cities. The death-rates of these cities do not seem to have any relation to the amount of water-supply; thus, the annual death-rate per thousand at the time the above figures for water-supply were collected was, for London, 21·4; Paris, 26·3; Berlin, 26·4; Vienna, 29·2; St. Petersburg, 35·2; Boston, 22; Philadelphia, 22·3; Chicago, 23·6; Baltimore, 24. New York at the same time had a water-supply of about 50 gallons per head per day, and a death-rate of 29.

London is the largest city in the world, and has the lowest death-rate of any large city; yet its daily supply is only 31 gallons per head, and one-third of that is wasted. Why, then, do American cities require so much larger a supply, and why should New York be taxed heavily for a supply six times greater *per capita* than that of London, which is what Mr. Bartlett thinks should be done?

The fact is, that the amount of water required per head in a large city where the freest possible use of it is allowed for household purposes, and for sprinkling streets and grounds, is not a matter of guess-work; it has been carefully determined, by observation and experiment, by physicians and engineers.

Dr. Parkes, the highest English sanitary authority, states as the result of careful investigation that, for personal and domestic use, with baths and perfect cleanliness, 16 gallons per head per day is sufficient. For hospitals, where the largest supply is required, 50 gallons per head per day is agreed upon by all authorities as the proper quantity. The distinguished engineers in charge of the water-supplies of Glasgow, Liverpool, and Manchester have found, as the result of long-continued observation and experiment, that where the freest use of water is permitted, with a pressure of from 20 to 40 pounds to the inch, about 16 gallons per head is used for domestic purposes, and about 10 gallons for street-watering, manufacturing, and fires, making a total of 26 gallons per head per day, and that all above this amount is wasted. We will discuss this matter of waste hereafter; the essential point now to be insisted on is that 50 gallons of water per head per day is a most ample supply for New York City, and that the demand for 100 or 200 gallons per day per head is utterly unreasonable. 50 gallons per head per day can, when the storage reservoirs are completed, be supplied from the Croton water-shed, for five millions of people, and, therefore, all statements that the Croton supply will not be sufficient for New York City for many years to come are utterly without foundation.—*Sanitary Engineer.*

MILK AND TYPHOID FEVER.

The agency that milk may assume in the propagation of fatal diseases has received much attention during recent years. Dr. Klein's investigations have confirmed the belief that milk has, in a large number of cases, been responsible for epidemics of scarlet fever.

Tuberculosis, it is also known, can be developed in cows, and can be distributed in like manner by their milk. Much consumption is believed to be due to this origin.

A recent epidemic which occurred in a New Jersey suburb goes far toward reducing the probability of milk acting as a disseminator of typhoid fever to a certainty. A florist had been in the habit of supplying five families with milk. He was attacked by typhoid fever, and, after an illness of several weeks, expired. It was found that he had been in the habit of drinking large quantities of milk himself, while the other members of his household used very little. Typhoid fever also began to appear among the five families whom he supplied. In each house there were one or more cases. In one family the suspected milk had been used for providing cream for coffee, &c., and the bulk of the fluid, or skim-milk, left had been used for cooking. In this house only one case appeared. Upon inquiry it was found that the invalid, a domestic, had habitually drunk the skim-milk. The others had not used it, and were unaffected. New cases were added to the list, but were all confined to the five families in question and to the florist's house. In one family five or six cases occurred, including one fatal attack.

On investigation, the water supply of the milkman's premises was found to be far from satisfactory. He received water from the regular water works. He used a portion of the water pipes within his premises for the conveyance of a liquid fertilizer. This inconceivably unclean practice would offer a good clue to the source of trouble had it been continued. But it is asserted positively that, since last February, no liquid manure had entered the pipes. A well of unquestionably bad water existed on the premises, but does not appear to have been used to any extent. The water supply in the meadow where the cows were pastured was contaminated

to some extent with sewage. It is very doubtful if a cow could drink water containing the typhoid poison, and, without becoming ill, could communicate it to her milk. None of the cows has shown signs of sickness. The propagation of the disease by milk is almost absolutely proved in this case. Where the poison or germ came from is altogether uncertain, and the problem has not passed the conjectural stage. If impure water were used for washing the cans, it would afford a satisfactory clue.

The lesson to be drawn from this is clear. Greater precaution in the use of water in dairies should be taken. The mere adulteration of milk is bad as a matter of ethics; but when the addition of water may involve the absolute poisoning of the milk, the responsibility for its addition is far graver. There is also a good side to the question. The occurrence cited in confirming the possibility of milk being the active agent in contagion also indicates a preventable cause. Recent advances in sanitary engineering have gone to prove that much malaria is of house origin, and the name "house malaria" has been coined to express the condition. In surgical practice, Lister introduced the carbolic acid *douche*, and while he supposed that it was disinfection that he was teaching, really taught surgeons to be clean, and many surgical cases now reach a successful end because of cleanliness in the operations. Typhoid fever, in one of its methods of dissemination, can be absolutely prevented by attention to the purity of the water supply of dairies. Boiling the milk may also be accepted as an efficacious preventive.

It seems a little remarkable that modern science is finding in the cow an agent of injurious disease, after the vaccine virus has been used for so many years as a palliative for small-pox.

Where Ladies Swoon.—*A propos* of fainting, I came lately upon a curious statistic: "Out of 612 young ladies who had hysterical fits, last year, more than one-half fell into the arms of gentlemen. Only three had the misfortune to fall on the floor."

Preservation of Meat.—The *Journal d'Agriculture* states that it is customary in Upper Saone (France), both on farms and in villages, to preserve meat in summer by placing it in large earthen pans or pots filled with curdled milk, or even with skimmed milk, which soon curdles, and storing the vessels in the cellar. In order to keep the meat beneath the surface of the milk, it is loaded with clean stones. Meat is preserved in this way for over a week, without the least change in its flavour. When it is needed for use, it is simply washed and dried. The milk is given to swine.

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—*Charles Mackay.*

HOW WE DECEIVE OURSELVES.

The deceptive character of the evidence of the senses has become attributed to them because of the failure to recognize that we seldom have to do with a simple sensation. What deceives is not the information of the sense, but the wrong interpretation of this information by the mind. Such interpretation need not be conscious, and often is not so. The familiar experience of raising a pitcher of water, usually well filled but upon the present occasion empty, and finding it dart upwards in our hands, is a case in point; for it shows that we estimate the amount of force necessary to raise the pitcher, but only become conscious of this inference when it happens to lead us astray. The phenomena of the stereoscope abound in illustrations of such unconscious reasonings.

One of the simplest types of deceptions arises when such an inference, owing to an unusual disposition of external circumstances, leads to a conclusion that better evidence shows to be false. A ball held between two crossed fingers seems to be double, because, under ordinary occasions, an impression on the right side of one finger and on the left side of its neighbour (to the left) could only be brought about by the simultaneous contact of two objects. Everywhere, then, we interpret the unfamiliar by the familiar, the unknown by the known: illusion arises when the objective conditions change their character, and real deception occurs when this change is not recognized, when no better evidence is present to antagonize the false inference. The child who regards a spoon half immersed in water as really bent, the moon high up in the sky as really smaller than when near the horizon, presents a case of such deception.

No better instances of deception depending upon unusual objective arrangements can be found than the ordinary conjuring tricks. Here deception depends solely upon an ignorance of the devices employed. When ink is turned into water, when two half-dollars are rolled into one, when a box in which you have just placed an article is opened and found to be empty, or when a card suddenly changes from one face to another, deception takes place when the spectator is ignorant that a chemical can change the colour of liquids, that one half-dollar is hollow and allows the other to fit into it, that the box has a double bottom, and the card a flap that, falling down, shows another aspect. These objective arrangements are often much more complex, and the conditions that ordinarily lead to correct inferences are imitated with remarkable ingenuity. The accepted rule of conjuring, to always first actually do that which afterwards you desire the audience to believe you have done, shows keen insight into the workings of the mind. When coins are caught in the air and thrown into a hat, a few are really thrown in; the others palmed in the hand holding the hat, and allowed to fall when the other hand makes the appropriate motions.

Leaving the objective conditions of deception, and turning to the subjective, the psychological interest is deepened. If our condition departs from the normal, however slightly, and we fail to recognize the variation,

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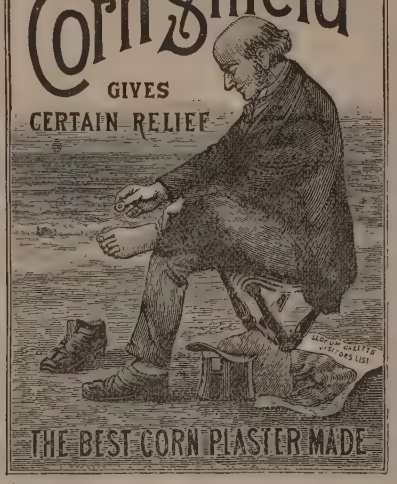

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illusion is apt to arise. The phenomena of contrast and fatigue are simple cases in point. Fatigue the eye with red, and it sees white light as green. Plunge the hand from hot water into luke-warm water, and it will feel the latter as cold. When a disturbed mental judgment is present to misinterpret such unusual sensations, illusions of a very serious type may arise. But even within the limits of normal judging powers, the emotions, the interest, expectation, can alter the nature of a sense impression. In all perception two factors contribute to the result,—the attitude of the percipient, and the nature of the object perceived.

When the naturalist observes what the stroller overlooks, or the sailor detects a distant sail when the landsman's eye sees nothing, it is because the former knows what to expect. When expecting a friend any indistinct noise is converted into the rumbling of carriage-wheels, as the mother hears in every sound the cry of her sick child. The conjurer, taking advantage of this, creates an interest in some insignificant detail, and draws the attention away from the real trick. His wand, his motions, his talk, are all intended to give him a favourable moment for doing the real trick before the unobserving eyes of the spectators. When he counts "one, two, three," centring all the emphasis upon "three," and thus focusing the attention of the audience upon that instant, he does the real transformation at the unattended "one" or "two." The conjurer's art is largely composed of devices for misleading the attention: a trick is successful according to the setting that the performer can give to it.

In one point, however, the conjurer's performance fails to illustrate the psychology of deception. The attitude of the spectator is too definite. He knows that he is being deceived and has nothing at stake. Quite different was it when such a performance carried with it a belief in the magical and mystical, when the spectator believed himself in the presence of powers that could be turned against him and his welfare. The best parallel to this attitude in modern times is seen in the physical phenomena of Spiritualism. The medium performs to sitters in doubt as to the true explanation of the phenomena, or more or less ready to credit everything to the supernatural. Such an expectation can see a miracle in the simplest conjuring tricks; and more than once have professional conjurers been declared to be mediums in spite of all protests from themselves. The general rule at the *séance*, where the emotions are strung to the highest pitch, and the judging faculties labour under the worst conditions, is that the spectators see whatever they are interested in seeing.

The same form is recognized by various spectators as the spiritual counterparts of totally dissimilar persons. Only let the form be vague, the light dim, the emotions at a strain, and what is lacking in the object will be supplied by the imagination of the spectator. In the same phenomena each finds proof of his own pet beliefs. until the refusal to mistrust the evidences of an excited consciousness leads to actual mental disorder. The records of the witchcraft delusion show the same result; the facts are seen in the light of the prevailing theory. "With the doctrines of modern Spiritualism to be supported, the number of mediums and manifestations will be correspondingly abundant. Create a belief in the theory, and the facts will create themselves."

To all this must be added the enormous influence of mental contagion. Wherever a subjective influence contributes to the resulting deception, contagion plays a part,—fear, panic, fanaticism, superstition, all flourish in crowds. The witchcraft delusion and the spiritualistic movement show to what dimensions psychic beliefs can attain when fanned by the flames of emotional enthusiasm. If, in addition to all this in which self-deception plays the leading *rôle*, we add the variety of illusions carried on by conscious fraud, we may, perhaps, appreciate the enormity of error through which civilization has made its way. Such errors are destroyed, not by logical disproof, but by rendering unsuitable the soil upon which they flourish.

MAY'S PINK POWDERS.

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THE KANGRA NOSE-MAKERS.

A correspondent of the Allahabad *Pioneer* gives an account of the Kangairas, a people who have long enjoyed a reputation as nose-makers. They belong to a sub-class of Hindoos named Bhatnagar Kaiths, which, according to some, is an inferior division of the Viash caste. Others, on the contrary, class them with the Sudras. They live chiefly in Kangra, a small hill canton in the Punjaub. Altogether there are fourteen families remaining, out of which only two individuals are practical nose-makers. Their reputation still remains. People come to them from the remotest parts of the Punjaub and even Afghanistan, actuated by the sole desire of having their facial promontory repaired or renewed. The Kangra nose-makers consider their art as one specially granted to them by the great Bajreshivu Devi of the place. They therefore perform the operation in strict secrecy. The writer says:—

It was only with great difficulty that I procured the following information respecting the *modus operandi* of this plastic operation for restoration of nose from an old *baid* and habitual opium-eater. My friend thinks nothing of daily consuming forty-five grains of opium, and, whenever he can afford, just to keep aglow the sunshine of his mind, adds a considerable amount of *bhang* and *charus* (*Canabis Indica*, leaves and extract) and arsenic. They say the *baid* is well versed in the science of physic and astrology; besides having a denizen of the other world at his beck and call, by whose assistance he is able to open the gates of the unseen. When sent for to advise on difficult cases, he never fails, before going, to summon and consult his ghostly servitor as to the prognosis of the disease he is called to cure. In the event of an unfavourable prognosis, he declines to attend, but furnishes his would-be patient with the exact date and hour of his demise. But I am wandering. The old *baid*, it seems, was a kind of family doctor or professor of medicine to one of the nose-makers, and in this capacity has more than once witnessed the operation of nose-restoration. He therefore considers himself in possession of the secret, if secret it is. His narrative ran thus:—After drugging their patient with some narcotic, the Kangairas forthwith proceed to paint the forehead with a medicated lotion as a preliminary step. On asking the composition of this lotion, the only answer vouchsafed was a grave shake of the head. The next step is to cut a piece of leather to the shape and size of the required nose. This being done it is placed on the forehead and used to mark out the line of incision. They then beat the forehead with an old slipper until the part marked out becomes swollen and prominent. Zinc tubes with a plate between them

to serve the purpose of *septum nasi* are then lodged in the nostrils. The next proceeding is to dissect a flap of the swollen flesh with a razor, leaving the lower part attached to the forehead. In doing this they take a vein with the flap, the name and position of which is a profound secret known only to himself and the nose-makers. The success of the operation depends entirely on the preservation and careful dissection of this secret vein. The next step was to turn up the flap with the secret vein in a particular way over the tubes. This being accomplished the other parts of the nose are pared and fastened to it with silk ligature, and the whole thing is brought to an end by the application of a special ointment over the wound. For several days, until the wound is healed, the patient must keep a recumbent position. On union taking place, the piece which was left attached to the forehead is severed, and the patient comes forth with a new-born nose. I ought to have mentioned that the removal of the zinc tubes is affected as soon as convenient. Thus ended the narrative of the medical adviser to the nose-makers.

It only remains now to inquire how far their work is successful, and if their skill be on a par with their reputation. That they have many opportunities of exercising their profession is beyond question. The wearing of *baloo* or *nath* (nose-ring) by the married women and girls to distinguish them from widows is a source of injury to the left *ala nasi*. This is specially the case with the hill women of Kangra, whose rings are far heavier than those of women dwelling in the plains; consequently one often sees the left *ala nasi* completely slit open, giving a more than slight disfigurement, and preventing the distinguishing mark from being kept up. Many of these women make use of the nose-makers; but, as far as my observation goes, and I have had many opportunities of seeing their work, I have never seen a satisfactory result. On the contrary, I have known many cases where the operation has simply left the woman in a worse plight than before.

Women Grow up in Corsets.—The assertion has an odd sound, but it is probably true that not ten women out of a hundred have the faintest conception of what it would feel like to have a natural, unfettered body. Within a few weeks the writer has asked twenty-eight women at what age they first put on corsets. Thirteen of them said they could not remember a time when they had not worn them. Their earliest recollection of themselves and their dress included corset waists and corset lacings. One New York physician estimates that city girls are corseted on an average when seven years old. Another says that her inquiries would lead her to put it at nine years. Women grow up in corsets and harmonize with the environments. They put on corsets in the morning before they do their shoes, and would not think they could comb their hair without stays. They live in corsets, and would be thoroughly uncomfortable without them. They haven't developed muscles to get along without support. And yet the corset might be made, at least, less obtrusive. It used to be the proper thing to wear an under-bodice of shape and thickness to hide or disguise the outline of the contrivance of whalebones and steels. Nowadays, nothing of the sort seems to be thought necessary. The corset is as prominent as if paraded outside of the gown. The fashion-plate marks its top and its bottom distinctly, and as for the woman herself, look at the next one you see riding on a horse-car, and you can sketch her corset very accurately on the margin of your newspaper.

Jottings from the Journals

"Th' ingredients of health and long life are
Great temperance, open air,
Easy labour, little care."—*Sir Philip Sydney.*

Typhoid Produced by Sewer-Gas.—An instructive outbreak of typhoid on H.M.S. "Monarch" is described in the Medical Statistical Return of the Health of the Navy in 1887. There were four cases in all. Three of these appeared to have been undoubtedly attributable to the berth alongside the New Mole at Gibraltar, which was occupied by the "Monarch" in January, a situation to which sanitary objections have often been raised. The observations of the medical officer (Fleet-Surgeon Maxwell Rodgers, M.D.) are as follows: "The 'Monarch' arrived at Gibraltar from Lisbon on the 18th of January, and was moored alongside the New Mole, at a point nearest to the dockyard, where she remained till the 24th of January, when she left for Port Mahon. Near the south corner of the dockyard, and but a short distance from where the ship was moored, one of the main sewers of the town empties itself into the sea. During the stay of the 'Monarch' at the New Mole, a strong wind, which increased to a gale on the 21st of January, blew in a direction from the opening of the sewer in question towards the ship; a most offensive and sickening smell was complained of by those on board, so much so that some of the officers were obliged to shut their cabin ports in consequence. I am informed that frequent complaints have been made for years past of the insanitary condition of this part of the harbour, and that cases of fever have from time to time occurred on board ships moored there, and I have no doubt that the noxious emanations from the sewer referred to are quite sufficient to account for the three cases of enteric fever which occurred. Condensed water had been used for drinking and cooking purposes." The first case occurred on the 22nd of January, the second on the 29th, and the third on the 6th of February; this last case was in the person of a young officer, who died in the military hospital at Gibraltar. The fourth case occurred at Lisbon in April; the patient, an officer, had visited Oporto. Fleet-Surgeon Wm. D. Wodsworth, the medical officer of the "Minotaur," also ascribes two out of the four cases that occurred in that ship to the influence of the same sewer at Gibraltar; he adds that "its mouth had been damaged, so that it was uncovered at low water"; and writes, he has since heard that "later in the year (this was May) some cases of fever occurred amongst the men of the Rifles who, on alternate days, supply the Mole guard and were subject to similar conditions, so much so that the guard was discontinued for some time, and the drain was mended." Two men of the "Minotaur" were invalided for the disease.—*Public Health.*

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What about Dancing?—From some cause or other it would seem that dancing as an amusement is less in vogue than formerly. Balls and dancing parties no doubt are very general, but so is the complaint that men care less about them than they did. The age, it would seem, has grown more practical, and its pleasures have put on a more serious air, at least with a number of the less emotional sex. It is not to be expected, however, or desired, that an art which has held for many years a high place in the scale of social amusements will soon or ever be forgotten. There is, indeed, much to be said in its favour. It provides an excellent means of light

exercise for the muscles of the body generally, in a greater or less degree. It encourages alertness of action, for

"Those move easiest who have learned to dance,"

and, by association, alertness of mind also. It adds to the happiness of social intercourse, the varied courtesy of changing companionship, and a means of widening, if desirable, the circle of one's acquaintance and influence. So much, in brief, as regards the advantages of dancing. Were they its only fruits, the Puritan's objection would not hold. But in a measure it still does. Here and there, shall we say a little everywhere, there are abuses, separable doubtless, but not yet separate. Let us look at the physical objections. Firstly, the hours are often very late. No one dances in the daytime, unless a learner, and there is something unhealthy in a plan of pleasure which, after a day of exertion, provides not a mere evening, but a night of active amusement. During this long period rooms must get hot and close, thinly-dressed dancers pass out into cool and draughty passages, and sometimes health suffers. Then, there is, with all the variety of movements, but one exercise, for the programme is full of dances, nothing else. Hence the very pleasure of the art is apt to be swallowed up in its own monotony. With so much to do, and that of one kind, there is also too little occupation for the mind, and round it must go, so to speak, in the body's whirl. Then what of thirst and its supplies? Why so free a use of stimulants to quench it, and of ices and other artificial food by way of nourishment? Such drawbacks as these have probably much to do with an objection to dancing still prevalent in many quarters. There is nothing hurtful in the practice itself; much that is good; but it has need to be pruned of its abuses. Let us have it natural, moderate in duration, in a pure atmosphere, skilful and decorous rather than busy, and temperate,—then the majority may derive therefrom enjoyment and profit.—*Lancet.*

Medical Conversazione.—A conversazione was held on Tuesday evening the 19th instant, at the Medical Battery Company's Institute, 52, Oxford-street, London, a large and distinguished company of ladies and gentlemen being present. The chief methods which the Company employ for curative purposes are applications of continuous and induced statical and electric currents. Massage manipulations, Swedish mechanical exercises, chemical inhalation, &c. Shortly before nine o'clock Mr. Harness delivered a short address of welcome to the guests present, and gave an interesting and descriptive account of the rapid growth of the Company, and its future intentions, and the remarkable manner in which the electropathic and other methods of treatment had met with public favour and become so deservedly popular. He explained how, through lack of opportunity, the majority of medical men found it impossible to satisfactorily study the curative powers of electricity. Individual doctors were totally unable to carry out electrical treatment except on a very limited scale. It required proper organization with an institution like the Medical Battery Company's, where every possible appliance and method of electrical application had been perfected and adopted under the care of a thoroughly efficient staff, whose duties were solely devoted to this purpose. Physicians could confidently send such cases as they considered suitable for electrical, mechanical, or other methods of cure, to the Company's Electropathic and Zander Institute. Many of them had seen for themselves the thoroughly efficient manner in which the entire establishment was conducted, and Mr. Harness informed his hearers that the Company's staff consisted of experienced, practical, and skilful operators, under the direct control of himself and his colleague, Dr. R. Vigoureux, the Chief Consulting Physician of the celebrated Salpêtrière Hospital in Paris. He said that he was also most ably assisted in his daily work by Professor Loreau, who was undoubtedly one of the highest medical, electrical, and anatomical authorities in the world, having been for many years Chief Preparateur at the Salpêtrière Hospital, as well as Preparateur d'Anatomie to other hospitals in Paris. Mr. Harness said he was very glad to see so many eminent medical men present, as it gave him an opportunity of assuring them that his earnest wish was to work in harmony with, and not against them. His objects were in common with theirs, viz., to relieve suffering humanity. The Company had thrown open their entire premises for the personal inspection of the faculty, and he hoped as many of them as possible would favour him with an early visit. After Dr. Vigoureux, Professor Loreau, and Dr. Lesson, had made a few congratulatory remarks, the guests were conducted through the extensive building, and shown the improved electrical appliances, Zander mechanical exercise machines (in motion), and many other objects of interest.

Our Letter-Box

"Conference [maketh] a ready man."—*Bacon.*

NOTICES TO CORRESPONDENTS.

All Communications for the Editorial Department (including Books for Review, Specimens of Sanitary Appliances, &c.), to be addressed to "The Editor of Health," 2, Paternoster-square, London, E.C. *Those intended for the Publishing Office to be sent to* Mr. A. P. Watt, The Publisher, *at the same address.*

RULES FOR CORRESPONDENTS.

Owing to the mass of letters which reaches us each week, we respectfully direct the attention of Correspondents, desiring replies in the Letter-Box Department of Health, to the following rules:—

1. All questions are answered free of charge in the columns of Health. A limited space only, is available for the insertion of replies each week.
2. All letters must be legibly addressed to "The Editor of Health, 2, Paternoster-square, London, E.C.," *and to no other address.*
3. Questions to which answers are desired by post, are so replied to solely at the Editor's discretion. If no answer is sent by post, the query will be replied to in the "Letter-Box" columns of Health. A stamped addressed envelope must accompany all queries to which a private reply is desired.
4. Addresses of physicians and surgeons will, as heretofore, be forwarded free to Correspondents on their enclosing a stamped addressed envelope for reply.
5. Correspondents are requested to write on one side of the paper only, and to make their inquiries as brief as may be consistent with clearness.
6. From the necessity of sending Health to press early in the week, no Correspondent can be replied to in the "Letter-Box" columns in the same week in which the inquiry is received. Replies crushed out of any issue will be found in the succeeding number.
7. No Post Cards must be used in sending queries. Violation of this rule deprives the sender of the privilege of a reply.

QUERIES AND ANSWERS.

REPLIES: GENERAL, SANITARY, AND MEDICAL.

[Readers of Health will kindly note that when back numbers of the journal are desired, the letters containing such requests and stamps for the numbers should be addressed to the Publisher of Health, 2, Paternoster-square, London, E.C., and *not to the Editor.*]

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GALVANIC BELTS,

FOR the CURE of NERVOUS DISEASES,
HAVE RECEIVED TESTIMONIALS from
THREE PHYSICIANS to
HER MAJESTY the QUEEN,
THE ACADÉMIE DE MÉDECINE of Paris and
FORTY MEMBERS of the
ROYAL COLLEGE of PHYSICIANS of LONDON.

RECENT TESTIMONIALS.

GALVANISM *v.* SCIATICA.

53, Beresford-road, Oxton, Birkenhead, 16th February, 1889.

Dear Sir,—I am glad to inform you that the patient whom I recommended to have your Galvanic Belt is now permanently cured. Before wearing the appliance he had suffered much from Sciatica, was at Buxton for six weeks, then at Droitwich, and had morphia injected frequently to induce sleep. The night before he wore your Belt he had morphia, but no sleep; but the second night after wearing the Belt he had several hours' natural sleep, and the next night still more, until now he is able to come to his office every day, and attend to his business as usual.—Yours faithfully, H. Hope.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* GOUT AND SCIATICA.

Sudbury, Suffolk, 4th February, 1889.

Dear Sir,—With grateful heart I write to inform you that I am now perfectly free from both gout and sciatica, and I certainly was never better in my life. My neighbours and friends are quite astonished to see me running about; as before wearing your Belt I had for a long time past been unable to walk without the aid of two sticks. I consider your treatment a wonderful scientific invention, and I will answer any inquiries.

Faithfully yours, H. Cave.

J. L. Pulvermacher, Esq., 194, Regent-street, W.

GALVANISM *v.* NEURALGIA.

23, John-street, Rochdale, 2nd February, 1889.

Dear Sir,—My daughter having suffered for three years from this distressing complaint, was advised to try your Galvanic Belt, which she did, and after wearing it for a short time she was completely restored, and has not worn the Belt since. That is nine months ago. Before trying your treatment my daughter was laid up for two years, and was under five doctors, but now she is well and hearty, and I hope by the publishing of this testimonial other sufferers may be persuaded to try your treatme t for neuralgia.—Yours very truly, (Mrs.) A. Shaw.

Mr. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* SPINAL WEAKNESS AND NERVOUS EXHAUSTION.

81, Brickfield-road S., Everton, Liverpool, 1st February, 1889.

Gentlemen,—I have much pleasure in testifying to the great value of your Combined Bands. For two years I was affected with a weak back or spinal affection, and was induced to try your remedy, and I am glad to say I am now completely restored to strength and vigour. Before I tried your treatment I was unable to walk except by artificial aid. I have never experienced any irritation or discomfort from wearing your appliance, and you are quite at liberty to make use of this communication in any way you may think fit.—Yours gratefully, George Young.

Messrs. Pulvermacher & Co., 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.

Lansdowne, Evesham, 26th January, 1889.

Dear Sir,—I am thankful to say that your Galvanic Belt has been of great service to me, and I never fail to recommend your treatment when I have the opportunity. I wish I could prevail upon more of my friends to try your Belts, for they are most valuable.—Yours faithfully,

H. Burlingham.

Mr. J. L. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.

99, Wotton-hill, Gloucester, 14th January, 1889.

Dear Sir,—I am very thankful to say that since wearing your Galvanic Belt I am so much better in my health, that I am a wonder to my friends, and my object in writing now is to ask your advice in another case of nervous weakness.—Yours very gratefully, Wm. Cross.

Mr. Pulvermacher, 194, Regent-street, W.

GALVANISM *v.* NERVOUS EXHAUSTION.

The distressing symptoms of Nervous Exhaustion and Debility are speedily removed by means of PULVERMACHER'S world-famed GALVANIC BELTS, which are so arranged as to convey a powerful electric current direct to the affected parts, gradually stimulating and strengthening all the nerves and muscles, and speedily arresting all symptoms of waste and decay.

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FOR FURTHER TESTIMONIALS, both Medical and Private, see new Pamphlet, "GALVANISM: NATURE'S CHIEF RESTORER OF IMPAIRED VITAL ENERGY," post free on application to

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GALVANIC ESTABLISHMENT,
194, REGENT-STREET, LONDON, W.
(ESTABLISHED OVER FORTY YEARS.)

R. Mair.—This formula may be tried: Liquor ammonia (strong), chloroform and oil of jasmin, of each, half an ounce; castor oil, half a drachm; spirits of rosemary, to make up four ounces. Keep in a stoppered bottle, and label: "A little to be cautiously rubbed into the hair each morning." Use also, at night, a little of an ointment composed of Lanolin, two drachms; and oil of jasmine, half a drachm. The use of the ointment at night will prepare the hair-roots for the action of the lotion in the morning.

Status.—Read the pamphlet, "A Lecture to Young Men" (post free for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C.), and you will find all necessary information given you therein.

Mentor.—For the itching try the following lotion: Bicarbonate of soda, one drachm; glycerine, an ounce and a half. Mix. Apply the lotion after washing. If this lotion does not cure the ailment, substitute for it the following: Pulv. calamin. ver., two drachms; pulv. oxid. zinc, one drachm; glycerine, half an ounce; aquæ camphor. ad., six ounces. Mix. Label: "For external use only."

A. Bell.—Try a vegetable dietary—stewed fruits, apples or oranges, &c., and whole-meal bread, with Scott's Oat Flour for supper and breakfast; avoid tea and coffee; take Cascara Cordial, twenty drops in water, between meals, once or twice daily. Sponge with cold water each morning; sleep on a hard mattress; take plenty of open-air exercise, and avoid fluids and suppers late at night. Dahl's Cakes should also be used by you.

S. S. S.—The advertisement you enclose is a quack announcement. Have nothing whatever to do with people who advertise. Let your diet be of simple character.

H. M.—Read the Ambulance Handbook—"Common Accidents, and How to Treat Them,"—by Dr. Andrew Wilson, and others, price 1s. 2d., post free, from Chatto & Windus, 214, Piccadilly, London, W., or order of any bookseller.

Plim.—The formula you seek for a hair-lotion adapted to promote growth is as follows: Tincture of nux vomica, three drachms; distilled vinegar, two and a half ounces; tincture of capsicum, one drachm; tincture of cantharides, six drachms; spirits of rosemary, one ounce; rose water, to make up six ounces. Rub a little well into the roots of the hair each morning.

Banshee.—The preparations of Messrs. Loeflund & Co., 148½, Fenchurch-street, London, E.C., would suit the child admirably. Try their Cream Milk and the Cream Emulsion.

Troubled.—Look to your food in the first instance. Take two or three tabloids of Cascara, once or twice daily, in water, an hour before your food, to correct the constipation which is at the root of your troubles, and eat stewed fruits, whole-meal bread, and Grant's Oat Flour, giving up tea and coffee for a time at least.

Sol-fa.—Write to Mr. Pulvermacher, 194, Regent-street, London, W., for prospectus of his galvanic belts, and give one of these excellent appliances a full and careful trial. We have known these belts act very successfully in cases like yours.

Gibraltar.—The only true remedy is that of having the hairs removed by electrical treatment. We can send you address of a specialist in skin diseases who can effect a cure in this way. All depilatories only remove the hairs for a time, but do not touch their roots.

Neatie.—You may with perfect safety take Cascara Cordial in doses of twenty drops in water, between meals, once or twice daily, Eat stewed fruits, vegetables, and whole meal-bread, and avoid tea and coffee, and take Dahl's Cakes regularly.

Lesbia.—1. Have a pill prepared containing one grain permanganate of potash, to be made up with Kaolin. Take one of these pills twice daily after your food, and let us hear the result after a brief trial of this remedy. 2. Burroughs, Wellcome & Co.'s Tabloids of Manganese Dioxide are in some respects preferable to pills.

A. G. R.—Wash with Iodoform Soap and tepid water night and morning, and apply thereafter to the skin a little of the following lotion: Bicarbonate of soda, a drachm and a half; glycerine, one ounce.

C. A.—Give the Soden Mineral Pastilles a trial (see advt. in our pages). They are excellent for all throat ailments.

Delta.—Follow the advice given to "Peter Hay" in Health No. 305. Your remedy lies in the adoption of the diet therein indicated. Give up tea and coffee, and take Scott's Midlothian Oat Flour in their place.

Stunted.—Take plenty of nourishing food, with a dessertspoonful of Scott's Pure Cod Oil Emulsion after your meals; and try a course of regulated gymnastic exercises at some suitable gymnasium.

J. Fitzjohn.—1. You must give up eating much flesh food and adopt a vegetable dietary. The liver, having to do with the manipulation of flesh foods, you must give it a rest, as it were. For the rest, take the Cascara Cordial, &c., as directed in advice to "A. Bell" above. 3. We regret we know of no such club as that you desire.

G. Knox.—A good application for such a case would be Bayley's

"Pommade Divine" (17, Cockspur-street, London, S.W.). Give this a fair trial. Bathe the part with hot water night and morning.

C. ALSTON.—Wash the head with tepid water once a week and Bayley's Spermaceti Soap; and, for the rest, use a little Brilliantine as a dressing. Soft brushes only are to be used.

P. M. RODIE.—[You addressed your letter to our former office, thus causing delay and trouble.] Any good booksellers in Scotland (say Maclachlan & Stewart, South Bridge, Edinburgh) will obtain for you the books you name, and save you all trouble. See Volume I. of HEALTH for a series of articles on "Cottage Hospitals."

SWALLOW.—You will find full directions in the pamphlet, "A Lecture to Young Men," fifth edition,—to be had, post free, for 1s. 1d. from Mr. Renshaw, 356, Strand, London, W.C. Attend to the directions given therein regarding cold sponging each morning, diet, and tonics,—preferably for you, iron. What you name is quite common, and is not due to any disease, but is rather a sign of health, and will pass away. Avoid constipation particularly by using Dahl's Cakes. Write again, if necessary.

S. P.—Avoid excess of fatty foods, and take a hot bath at bedtime twice weekly. Read HEALTH, No. 199 (to be had of the Publisher), and note what is said about treatment in the article on "Blackheads."

AERONAUT.—You must restate your case. We do not preserve correspondence. Meanwhile, try a milk diet, peptonizing the milk by means of Fairchild's Powders (Burroughs, Wellcome & Co.'s), and take your flesh-food, for a time, in the form of Brand's Essence of Beef and soups. Avoid excess of vegetables. A tabloid of Eunoymin, Cascara, and Nux Vomica should be taken as directed on the bottle as an excellent remedy,—Burroughs, Wellcome & Co. are the makers, but your druggist will supply you with them.

ERMINE.—Read the pamphlet recommended to "Swallow" in the present number for full advice.

OLD MAID.—Before resorting to cutting your hair short, we advise you to try the lotion recommended to "J. Anderson" in last week's HEALTH. Give this a fair trial, and let us hear how it acts. In addition, have your hair merely trimmed (not cut) every week, and wash it once a fortnight with tepid water and Bayley's Spermaceti Soap. Be particular to avoid all hard combs, and use a soft brush night and morning to brush it and the scalp for some minutes. You must, in addition, look well to your general health, and you may be the better of taking fifteen drops of Fer Bravais, thrice daily, after meals, in a little water.

CEAP.—1. The infant is suffering simply from overfeeding. Give Woodward's Gripe Water a trial when the symptoms are present. This is a safe and reliable medicine. 2. Use Mellin's Food only. That you name is unsuitable, as it contains starch.

G. P. S.—1. Mr. Harness may be able to advise you on the matter (52, Oxford-street, London, W.). 2. Pitkeathly Water should be taken freely by you. Your alcohol is disagreeing with you; therefore, give it up.

MOTHER.—1. The one great preventive of rheumatism in children (see article on this subject in a recent number) is woollen clothing. Use that made by Mr. Forsyth, 17, Renfield-street, Glasgow. As you clothe your child at present, we do not wonder it is troubled with colds. 2. Displacement, and probably what is called "anteversion."

KILLJOY.—You might try Bunter's Dentine for your teeth. It is easily applied. Use Wilson's Puriline Tooth Polish (see advertisement in our pages).

A. G. S.—Look to your cistern. The water is evidently contaminated; and use a Howie's Filter regularly (Hurlford, Kilmarnock, N.B.).

JINX.—The matter is a simple one, and will readily yield to treatment. Apply to Mr. Pulvermacher, 194, Regent-street, London, W., and he will advise you fully.

APPLE BLOSSOM.—Bayley's cure for piles should be tried in preference to that you name. Ask for the Pyrmont Tablets and Ointment (17, Cockspur-street, Pall-mall, London, S.W.).

MILK IN POWDER!

UNSWEETENED OR SWEETENED.

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THE CHEAPEST, PUREST, AND MOST NUTRITIOUS

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IS THE MOST SIMPLE AND

PERMANENT STOPPING for DECAYED TEETH.

Any one can easily prepare and place it in the cavity of the Tooth in a soft state, and in a short time it becomes a perfectly hard and white Enamel, forming, as it were, a part of the original substance of the Tooth.

All Chemists, 1/6. *Post Free*, 19 *Stamps, by Proprietor.*

PURILINE Tooth Polish

Will Purify and Beautify the Teeth with a Pearly Whiteness; Polish the Enamel; Destroy Tartar and all Living Germs; and Keep the Mouth in a Delicious Condition of Comfort, Health, Purity, and Fragrance. It is not a Powder or Soft Paste that will scatter over clothing and soil the toilet, but a Dental Paste of stiff consistency, non-gritty, and Absolutely Pure. May be carried in the pocket in any climate of the world, without injury or losing its virtues.

Price 1/- *Sold by Chemists, Perfumers, &c., or sent post free by Proprietor.*

PURILINE Tooth Wash

FOR THE TEETH, GUMS, AND BREATH.

A PURE, PERFECT, AND REFRESHING FLUID DENTIFRICE.

A few drops in water used daily will thoroughly Cleanse, Beautify, and Preserve the Teeth; Polish the Enamel, prevent Tartar, Destroy all living "Animalculæ." It is Absolutely Pure and Harmless to the Youngest child or most delicate constitution.

Sold by all Chemists, Perfumers, &c., 1/- *per Bottle, or sent post free by Proprietor.*

Proprietor: ALFRED WILSON, 422, Clapham-road, London, S.W.

Ellen G. R.—To the water you use for washing add the Oriental Aromatic Salts (advertised in our pages), as these Salts soften it, and act healthily on the skin in preventing blackheads and eruptions. See also advice given to "S. P." above.

E. F. M.—1. By all means give Horsford's Acid Phosphate a trial, as a suitable tonic. Full directions are given on the bottle. 2. For the voice, try the Soden Mineral Pastilles. They are excellent remedies for hoarseness and phlegm.

Transpontine.—1. Only by a microscopical examination; and a physician alone would be competent to make such an investigation. 2. What do you want better than Lamplough's Pyretic Saline? The preparation you name is vastly inferior to Lamplough's. 3. See remarks in our "Notes by the Way" last week.

Richard Tait.—Many thanks; but you will perhaps allow us to be the best judges of how this journal should be conducted. You are in no sense right in what you say about the proprietors of the medicine you name. They are a well-known firm, and the medicine is prescribed daily by physicians of the highest repute.

Glen Eagles.—1. Out of the question entirely; but we will try to oblige you if you send a stamped addressed envelope. 2. The man is a "religious" quack of the worst kind, and his statements are sheer nonsense. Such men do a vast deal of harm by their perversions of the truth. 3. A trial of Scott's Oat Flour should be made by you in place of tea.

Fanny B.—Be careful in your diet, and avoid vegetable foods when your symptoms trouble you; and take fifteen drops of Collis Browne's Chlorodyne in a little water when the pain is severe, repeating the dose in four hours, if necessary.

Veritas.—1. Read the pamphlet recommended to "Walter Scott," in the last number, and you will find full information therein. You do not require drugs at all. Care in diet, habits, &c., as the pamphlet will show you, is alone necessary. The tonics you are now taking are simply stimulating you and increasing the symptoms you complain of. 2. Read Health, No. 199 (post free from the Publisher for 4½d. in stamps), and note the article therein on blackheads and how to treat them.

Ask and Receive.—You suffer from a slight form of indigestion; and you should take a little stout or good claret each day to dinner, as the simplest fashion of assisting digestion. Your total abstinence,—admirable in itself,—is too rigid a regimen for you. If you object to alcohol in any form, then try a dessertspoonful of Scott's Pure Cod Oil Emulsion after meals. The treatment indicated will relieve the other symptoms you name. The term "blood-purifier" is utterly meaningless.

Hospital.—Address your inquiry to the Editor of the *Lancet* or *British Medical Journal*; or peruse the advertisements in these periodicals. There is a private hospital called Oldfield, St. Boniface-road, Ventnor, Isle of Wight, where you can have such accommodation at rates varying from a guinea to six guineas per week. There is also the Bolingbroke Home Hospital, at Wandsworth-common, London, S.W., where there is a resident surgeon,—fees from half a guinea to three guineas per week. Fitzroy House, Fitzroy-square, London, W.C., is also an institution of the kind you name.

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Horsford's Acid Phosphate.

This preparation supplies the phosphates required for the performance of the several functions of the body, and acts as a nutrient to the cerebral and nervous systems. Its value in the restoration of weakened energy is wonderful. Agreeable to the taste.

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COAL TAR AND CARBOLIC SOAPS.

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Boxes of 3 Large Tablets, 1s. 1d., by post from the Sole Maker,

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KILL DISEASE IN EVERY FORM.

UNPARALLELED for Bronchitis, Diphtheria, Chest, Liver, and Kidney Complaints, Diarrhœa, Constipation, Congestions, Rheumatism, Gout, Inflammations, Children's and Female Ailments, Fevers, Ulcers, Old Sores, Blood and Skin Diseases, Wounds, Pains, Bruises, &c., &c.

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Wonderful Flesh Producer. Use it, and Try your weight.

Scott's Emulsion is not a secret remedy. It contains the stimulating properties of the Hypophosphites and pure Norwegian Cod Liver Oil, the potency of both being largely increased. It is used by Physicians all over the world.

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All Chemists at 2/6 and 4/6.

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"Among the advantages it possesses may be enumerated "the ease with which it may be prepared, and its agreeable flavour and **aroma.** In addition to these, it is, "when properly made, hardly thicker "than coffee, thus avoiding the disadvantage of some preparations which "are thick and muddy; this is produced "by the **total absence of any thickening matter.** To sum up tersely, we "would say that **everyone should elect** "to use it."

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Without the Borax, for persons to whom its flavour would not be agreeable. 2/6 per Box.

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COCA, in combination with selected Teas; tonic, invigorating, and delicious. 4/- per lb.

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Quickly correct all irregularities and relieve the distressing symptoms so prevalent with the sex. Boxes, 1s. 1½d. and 2s. 9d., of all Chemists. Sent anywhere for 15 or 34 stamps, by

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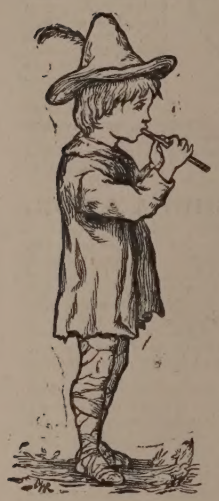

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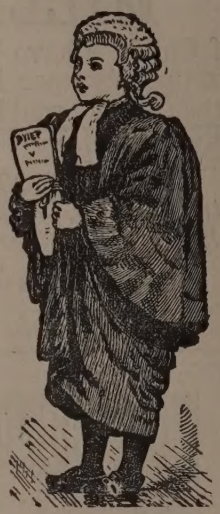

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